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NOTES ON GEOGRAPHIC DISTRIBUTION

Pisces, Cyprinodontiformes, Rivulidae, *Austrolebias minuano* (Costa and Cheffe, 2001): new species record at Lagoa do Peixe National Park, state of Rio Grande do Sul, Brazil

Fabiano Correa,[1*] Alexandre Miranda Garcia,[1] Daniel Loebmann,[2] Marlucy Coelho Claudino,[1] Rodrigo Ferreira Bastos,[1] and João Paes Vieira [1]

[1] *Universidade Federal de Rio Grande. Campus Carreiros. Instituto de Oceanografia. Laboratório de Ictiologia. Caixa Postal 474. CEP 96.201-900. Rio Grande, RS, Brazil.*

[2] *Universidade Estadual Paulista, Instituto de Biociências, Departamento de Zoologia. Caixa Postal 199. CEP 13506-970. Rio Claro, SP, Brazil.*

[*] Corresponding author. E-mail: correafecologia@yahoo.com.br

Austrolebias minuano (Costa and Cheffe 2001) (Figure 1) is a annual fish belonging to the Rivulidae family that is comprised of approximately 235 species, from which 16 are endemic to Patos Lagoon drainage basin (Costa 2003). They inhabit temporary pools or swamps formed at the rainy season usually during winter months in southern Brazil (Costa 2006, Porciuncula et al. 2006). Adults die when ponds dry out during warmer months, but they leave their eggs buried into the sediment, where they remain in diapause until a new rainy season restores water levels in their habitats (Costa 2006). *Austrolebias minuano* is one of the species of the *A. adloffi* species group, which is characterized by a pair of black spots arranged vertically in close proximity, which can coalesce to form an 8-shaped blotch, on posterior portion of caudal peduncle in juveniles and adult females, and sometimes in adult males (Costa 2006). It can be distinguished by a combination of several characters, being among them, a black bar on parietal series of neuromasts, dorsal and anal-fin bases with elongated white spots, anterior flank bars about as wide as interspace and posterior bars wider (Costa op cit.). This species is considered endangered, especially due to expansion of increasingly urbanization and agriculture activities, which drastically alters and/or permanently disrupt their habitats (Fontana et al. 2003; Rosa and Lima 2008).

On October 6, 2008, we collected three specimens of *A. minuano* (two males and one female) at temporary pools along a side road at a locality known as *Talha Mar* (31°15'21.52" S, 50°58'57.50" W), located approximately 12 km northeastern to city of Tavares and inside the Lagoa do Peixe National Park (Figure 2).

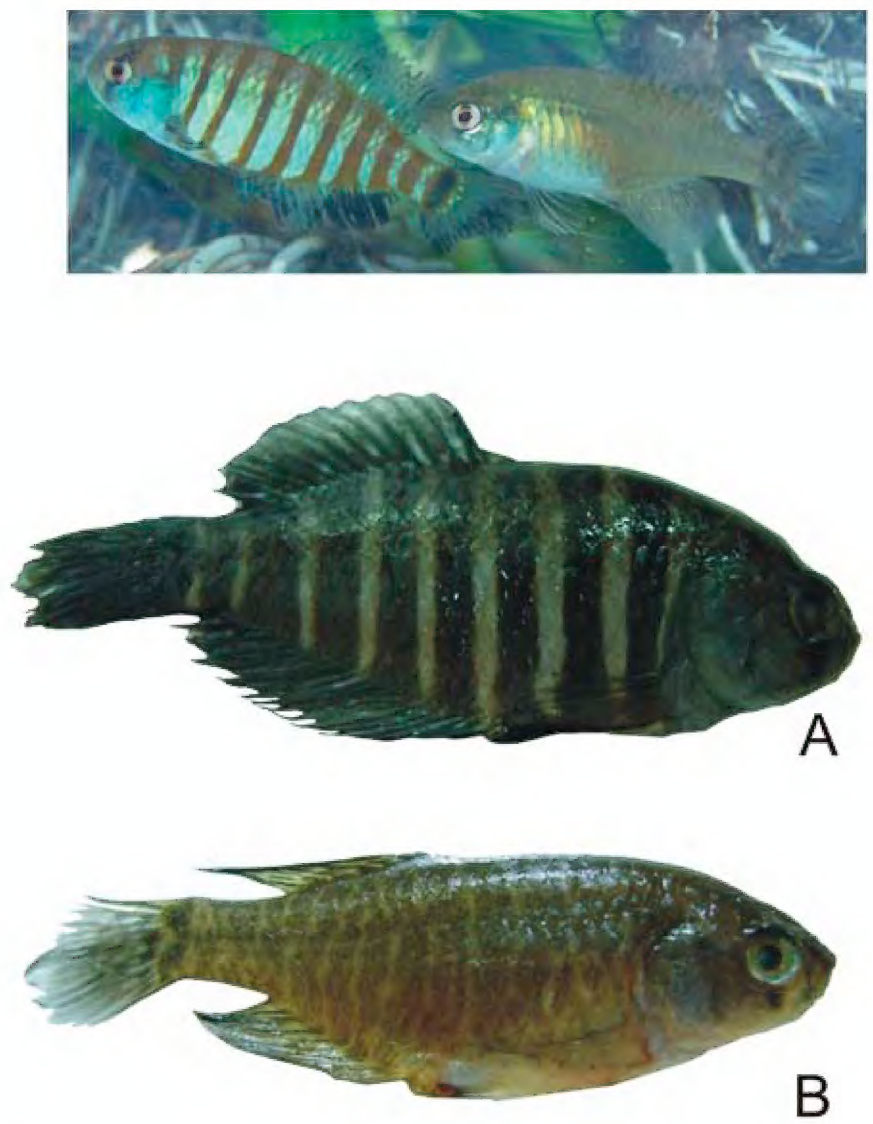

Figure 1. Male (A) and female (B) of *Austrolebias minuano* collected at Talha Mar locality at Lagoa do Peixe National Park, state of Rio Grande do Sul.

Individuals of *A. minuano* were collected with dip nets altogether with several other species during a field trip of a research project conducted by the Ichthyology Laboratory of the Rio Grande Federal University, FURG (*Estudo da trama trófica aquática do Parque Nacional da Lagoa do Peix*e, CNPq - Proc.: 482920/2007-6, SISBIO license for field collection: # 14443-1). Specimens were preserved in 10 % formalin and later identified at the Ichthyology Laboratory based primarily on Costa and Cheffe (2001) and Costa (2006). Specimens examined were stored at the Ichthyology Laboratory of the same University (FURG5042), and their morphometric data are shown at Table 1.

Austrolebias minuano occurs across the southern floodplains and adjacent coastal region of Patos Lagoon, state of Rio Grande do Sul (RS), southern Brazil (Costa and Cheffe 2001). Among the specimens examined by Costa (2006) there were some individuals caught in swamps near São José do Norte and Tavares cities, in the southern portion of the sand peninsula (locally called *restinga*) that isolates Patos Lagoon from the sea (Costa 2006) (Figure 2). However, there are no previous records of annual fishes in the Lagoa do Peixe National Park, which is located in the central portion of this peninsula. Recently, an extensive fish inventory conducted by Loebmann and Vieira (2005) did not report any annual fishes among the 73 fish species reported to occur across several freshwater and estuarine sites along this national park. The present work reports for the first time the occurrence of *A. minuano* in the Lagoa do Peixe National Park.

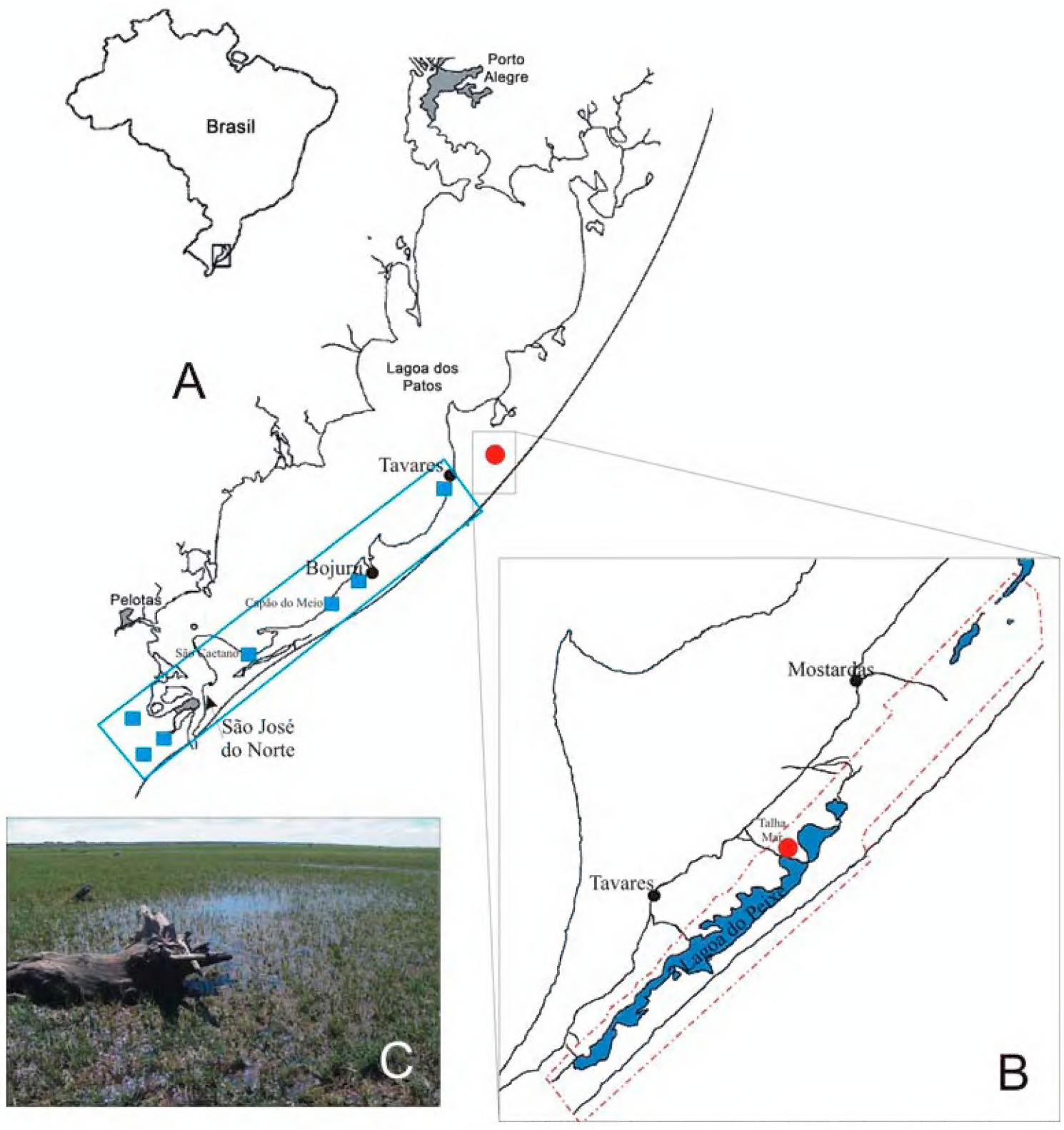

Figure 2. Patos Lagoon in southern Brazil (A) and the Lagoa do Peixe National Park (B, C) showing the location of Talha Mar, where specimens of Austrolebias minuano were captured. Blue filled squares denote the previous known geographic distribution of A. minuano, as pointed out by Costa and Cheffe (2001) and Costa (2006). The red dot denotes the current record of A. minuano inside the borders of the Lagoa do Peixe National Park, and approximately 13 km northeast from the previous location (Tavares city).

Lagoa do Peixe National Park has an area of approximately 35 Km^2 and is considered as a "Biosphere Reserve" by UNESCO and was declared a national park by Brazilian authorities in 1986. It had obtained international recognition mainly due to its importance as a feeding and resting site for birds migrating between North and South America (Nascimento 1995). Our report of the occurrence of this endangered fish species inside the park highlights the urgent need to reinforce conservation actions aiming to protect its aquatic habitats, including marginal areas that are seasonal flooded. Ongoing anthropogenic impacts related to private land use within the park, such as cattle grazing and farming, could threat the future maintenance of this annual fish in the Lagoa do Peixe National Park.

Table 1. Morfometric data of *Autrolebias minuano* collected at Lagoa do Peixe National Park, Rio Grande do Sul, Brazil.

	Male	**Male**	**Female**
Standard length (mm)	36.19	32.71	33.84
Weight	0.88	0.77	0.98
Body depth	10.57	11.45	10.88
Body width	4.84	4.80	4.84
Caudal peduncle depth	4.71	4.84	4.67
Peduncle length	5.72	4.33	5.02
Peduncle width	1.81	2.00	1.95
Pre-dorsal length	18.4	17.75	19.33
Pre-pelvica length	15.7	13.89	16.13
Length of dorsal-fin base	9.9	9.65	9.12
Length of anal-fin base	14.84	13.44	7.67
Pelvica-fin length	3.03	3.68	3.35
Head length	9.50	9.83	9.28
Head depth	8.41	7.94	6.67
Head width	5.40	5.33	4.79
Snout length	2.35	2.38	2.13
Lower jaw length	2.99	3.01	3.02
Eye diameter	3.03	3.22	2.85

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